

# 5 Studies and Program Evaluations

DJJ operates many programs for juveniles in direct care and under supervision in the community. In order to monitor these programs, DJJ conducts evaluations by collecting data on juveniles and analyzing recidivism rates and other behavioral indicators. Evaluations point out ways to improve programs and benefit the juveniles who participate. This chapter summarizes selected evaluation projects, including studies mandated by the General Assembly, projects involving more sophisticated data analysis methodologies, surveys, and studies in progress.

## General Assembly Studies

### Post-D Detention Utilization Report

JDCs in Virginia have consistently operated at or below 60% certified capacity for several FYs. The General Assembly commissioned a study in Chapter 806 of the 2013 Acts of Assembly, Item 408 G:

*DJJ shall review current practices in the post-dispositional detention program and consider potential options for expansion of the program, including incentives for increased participation by local and regional juvenile detention facilities and increased use of detention beds for holding state-responsible juvenile offenders as an alternative to the use of state facilities.*

DJJ convened a Legislative Study Group including DJJ Central Office personnel, CSU directors, JDC superintendents, and a JDC post-D coordinator. The study group analyzed data on committed juveniles eligible for post-D programs and conducted a survey of 64 stakeholders, collecting data on program use, program implementation, ideas and barriers for expansion, and operational financial data of the localities. Based on this information, DJJ made the following three recommendations:

1. Do not expand post-D programs or extend the LOS in post-D programs at this time.
2. Prior to considering changes in the LOS or expansion of post-D programs, fund an evaluation of currently operating post-D programs to identify best

practices, strengthen current programs, and provide a model program guide to assist in the development and implementation of new programs.

3. If expansion takes place, adequate additional funding is an absolute necessity for the programs to be successful.

## Education Program Review and Staffing Analysis: Teacher Ratios

The General Assembly commissioned DJJ, with the assistance of the Virginia Department of Education, to complete the following study as mandated in Chapter 806 of the 2013 Acts of Assembly, Item 405.05:

*DJJ, with the assistance of the Department of Education, shall complete a program review and staffing analysis to determine the appropriate teaching staffing ratios for the state-operated juvenile correctional centers and local and regional juvenile detention facilities.*

The JCC analysis showed that the teacher-to-student ratios for DJJ's Yvonne B. Miller High School were between 1:7 and 1:8 during the FY 2013 semesters. These ratios comply with the *Virginia Administrative Code* (8VAC20-81-320) for special education requirements of students in residence or custody. The staffing review of Virginia's JDCs found that the Virginia Department of Education needs to maintain the current level of teaching staff in order to offer students core content, CTE, and elective classes. Both reviews concluded that further reductions in staffing could reduce the level of educational services and the number of diplomas and GEDs earned. Furthermore, compliance with state and federal laws, including the Individuals with Disabilities Education Act and the Americans with Disabilities Act, may be compromised if educational staffing were reduced.



## Select Non-Mandated Studies

### Predictors of Recidivism

DJJ monitors recidivism rates annually, and the rates have remained relatively stable in the past several FYs. In order to lower recidivism rates, DJJ sought to analyze what factors are tied to an increased likelihood of reoffending. While DJJ has risk assessment tools in place, this study aimed to identify new predictor variables that may not be identified in the existing assessments.

A statistical model was created using data collected on all juveniles during intake at RDC intake. Using logistic regression models on a sample of 3,750 juveniles released in FY 2006-2010, DJJ found that demographic, risk level, offense history, mental health, and treatment need variables were statistically significant predictors of rearrest and reconviction within one year of release. Social history, institutional offenses, and length of stay were among the categories of variables that were not significantly related to reoffending.

The table below shows the results from the two logistic regression models in terms of statistically significant odds ratios (alpha level of 0.05). Odds ratios indicate how much more likely a juvenile with that characteristic is to be rearrested or reconvicted within one year than a juvenile without that characteristic. All of the variables in the table had a significant relationship with rearrest, reconviction, or both rearrest and reconviction within one year. Predictors that were only significantly related to one of the outcome variables do not have ratios listed for the non-significant relationships. The variables in the table are roughly organized in order of those with the

strongest to weakest relationship to the outcome variables. Eleven variables had a significant relationship with rearrest within one year, and these variables were able to correctly predict rearrest for 64.7% of the population in the study. Eleven variables also had a significant relationship with reconviction within one year, correctly predicting reconviction for 66.3% of the population.

This analysis showed that most of the variables linked to recidivism are static as opposed to dynamic. Static variables are unchangeable; examples include sex, race, offense history, and assigned treatment needs. While DJJ cannot change static traits in a juvenile, it can target juveniles with those static traits and provide them more services to mitigate the risk of reoffending.

The most prominent finding in this study was that juveniles with a mandatory sex offender treatment need were much less likely to reoffend than juveniles without a mandatory treatment need. Due to lack of treatment completion information and program-specific data, the analysis cannot imply that sex offender treatment prevents reoffending or that it is more effective than other treatment programs. However, this finding does indicate that juveniles with this treatment need are drastically less likely to reoffend, suggesting that they may warrant specialized attention and programming.

The analysis presented in this study is largely preliminary. DJJ plans to conduct further analyses of different measures of reoffending using more advanced statistical methods in order to create models with a higher predictive value. In future studies, DJJ will examine the significantly related variables from this study to make more concise conclusions regarding their relationship to recidivism.

### Odds Ratios of Recidivism Predictors in Rearrest and Reconviction Models

	Rearrest	Reconviction
No Mandatory Sex Offender Treatment Need	2.9	3.1
Male Juveniles	2.6	2.9
Parole Level 4 at Release	1.6	1.6
Released to Parole	1.5	1.5
14 Years of Age or Younger at First Adjudication	1.4	1.4
Five or More Adjudicated Offenses in History	1.4	1.2
Classification Level 2-4 at Release	1.3	1.4
Chronicity Score > 3	1.3	1.3
Two or More Current Mental Status Problems	1.3	1.3
Black Juveniles	1.4	----
Juveniles with ODD or CD	1.3	----
17 Years of Age or Older at RDC Admission	----	1.3
Three or More School Problems	----	1.2
Predictive Value of the Model	64.7%	66.3%

Juveniles with a mandatory sex offender treatment need were much less likely to reoffend than juveniles without a mandatory sex offender treatment need.



## Educational Programming

Juveniles in JCCs can earn academic credits toward and receive a high school diploma, prepare for and complete a GED, and participate in CTE training. Based on a request from the Commission on Youth, DJJ completed an analysis of educational credentials, CTE course completions, and recidivism. The analysis compared recidivism rates of juveniles who earned credentials or completed CTE courses while in the facilities to those who did not earn a credential or complete a CTE course. The analysis also included statistical testing to determine if completion of educational programs was significantly related to recidivism rates.

The analysis was limited because DJJ does not have access to juveniles' educational records post-release. For this reason, a subgroup of juveniles who were 18 years of age or older was examined in addition to the sample of total releases. It was assumed that juveniles 18 years of age or older are less likely to re-enroll in educational programs post-release because they are not subject to compulsory school requirements, thus providing a better picture of total educational achievement for the analysis.

Based on rearrest and reconviction rates and statistical testing of 1,337 juveniles released from JCCs in FY 2009-2010, juveniles who earned diplomas while in JCCs were less likely to reoffend within one year. This relationship was especially true for juveniles who were 18 years of age or older at the time of release. Earning a GED while in a JCC did not have a statistically significant relationship with rearrest or reconviction. Completing a CTE course in a JCC was related to a lower likelihood of reoffending, regardless of age at release.

Diplomas and CTE course completions were significantly related to lower recidivism.

## 12-Month Rearrest and Reconviction Rates for GED and Diploma Earners, FY 2009-2010

Credential	All Releases		Releases Age 18+	
	2009	2010	2009	2010
<b>Rearrest</b>				
Diploma	28.6%	37.8%	22.2%	30.0%
GED	48.8%	39.4%	47.2%	37.4%
No Credential	52.3%	49.0%	49.1%	50.0%
<b>Reconviction</b>				
Diploma	19.6%	26.7%	11.1%	20.0%
GED	35.9%	32.1%	32.7%	28.0%
No Credential	38.7%	35.5%	42.4%	39.0%
<b>Total Juveniles</b>				
Diploma	56	45	45	40
GED	209	165	159	107
No Credential	530	451	165	154

- » Earning a diploma while in a JCC was significantly related to a decreased likelihood of rearrest and reconviction. This relationship was stronger for juveniles 18 years of age or older.
- » Juveniles who earned GEDs while in a JCC had lower recidivism rates in the raw number analysis, but statistical testing did not find a significant relationship between earning a GED and rearrest or reconviction.

## 12-Month Rearrest and Reconviction Rates for CTE Completers, FY 2009-2010

CTE Completion	All Releases		Releases Age 18+	
	2009	2010	2009	2010
<b>Rearrest</b>				
Completed CTE	42.7%	34.1%	37.2%	35.1%
Did NOT Complete	52.7%	50.3%	50.7%	48.1%
<b>Reconviction</b>				
Completed CTE	32.6%	22.7%	27.6%	24.6%
Did NOT Complete	38.3%	38.5%	39.4%	38.3%
<b>Total Juveniles</b>				
Completed CTE	239	176	144	103
Did NOT Complete	556	481	225	194

- » Completing a CTE course was significantly related to a decreased likelihood of rearrest and reconviction. This relationship was no stronger for older juveniles.



## Community Service Survey

In February 2013, DJJ conducted a survey of CSUs and VJCCCA programs to review community service practices. The survey asked respondents to provide information related to the types of community service activities in which juveniles participate and the equipment or tools used in performing community service. Results of the survey were used to develop a DJJ procedure regarding community service (CSU Procedure Vol. III-3.4-30).

### Use of Community Service Activities by CSUs and VJCCCA Plans

Community Service Activity	CSUs	VJCCCA Plans
Building/Construction	20.0%	4.3%
Caring for Animals	51.4%	20.3%
Caring for People	51.4%	13.0%
Cleaning	91.4%	46.4%
Collecting/Sorting/Packaging	74.3%	39.1%
Food Preparation/Meal Services	31.4%	17.4%
Fundraising	20.0%	4.3%
Gardening/Planting	54.3%	31.9%
Lawn Care/Landscaping	74.3%	30.4%
Painting	48.6%	31.9%
Sports/Recreation	54.3%	29.0%
Other	51.4%	71.0%

- » All 35 CSUs responded to the survey.
- » In 91.4% of CSUs, community service work is both ordered by the court and used as a diversion/sanction.
- » Out of the 75 VJCCCA plans statewide, 92.0% (69) responded to the survey.
- » The most common community service activities performed, as indicated by the CSUs, were Cleaning (91.4%), Collecting/Sorting/Packaging (74.3%), and Lawn Care/Landscaping (74.3%).
- » The most common community service activities performed, as indicated by the VJCCCA plans, were Other (71.0%), Cleaning (46.4%), and Collecting/Sorting/Packaging (39.1%). "Other" community service activities included office tasks, trash collection/pick-up, and washing vehicles.

## Juvenile Justice Systems Survey

In order to collect primarily qualitative information on national trends in juvenile justice systems and correctional facilities, a survey was designed and sent to all states on the Council of Juvenile Correctional Administrators mailing list and the District of Columbia. (A total of 49 surveys were sent.) Questions included topics such as security features, uniforms and nomenclature, staff roles, and service delivery. Analysis of the 27 responses (55.1% response rate) showed several trends and two general groupings of characteristics.

Of those responding to the specific items, most states reported having fences (92.0%) and locked cells (87.0%) in their secure facilities; fewer states reported having razor wire (62.5%), and of those states, 26.7% reported transitioning to other fence types through replacement or new construction. Additionally, there was a trend toward informal polo and khaki uniforms and away from paramilitary titles. There was also a trend toward more comprehensive staff involvement, with a majority of states reporting security staff involvement in at least the behavior modification program.

All states reported providing services for juveniles' entire LOS with individualized treatment plans. Waiting lists were rarely mentioned and only in relation to sex offender or substance abuse treatment. However, the definition of the individualized treatment plans, the details of the treatment services, and the number and characteristics of the juveniles with treatment needs were generally not provided. Therefore, caution should be used when comparing states' service delivery.

Generally, two groupings of characteristics were identified. It is important to note that groupings are generalizations based on limited information, and many if not all states did not fit perfectly into a single group.

### General Groupings of Characteristics

Juvenile Justice System Characteristics	
<b>Group A</b>	
	Mixture of security levels
	Therapeutic culture
	Integrated security and treatment staff
	Higher qualifications for security staff
	Housing unit continuity
<b>Group B</b>	
	Higher security levels
	Formal culture
	Separate security and treatment staff
	Lower qualifications for security staff
	Housing unit transfers





## Studies in Progress

### JCC Treatment Program Evaluation

During the intake evaluation at RDC, juveniles may be assigned a treatment need based on their social, psychological, and offense history. Juveniles can be assigned a treatment need in one of three categories: aggression management, substance abuse, or sex offender treatment. In order to assess program effectiveness, DJJ has begun the process of reviewing treatment program completion data and ensuring that treatment completion data entered into BADGE are correct and up-to-date. In the coming months, DJJ will compare the institutional behavior before, during, and after the treatment program as well as long-term recidivism rates of program participants and non-participants.

### Custody Classification System Evaluation

In 2011, the custody classification system used in the JCCs was modified in two ways: (i) the point and level assignments on the classification form were changed and (ii) the designations of each JCC in respect to appropriate classification levels was clarified. Placements according to the revised classification system took place between April and August 2011.

An evaluation of these revisions was planned during the initial implementation. This evaluation requires an adequate follow-up period in order to accomplish the following goals:

- » To determine if the revision in placement guidelines has improved overall institutional behavior via a pre- and post-test design.
- » To determine if the revision to the initial classification scoring system better predicts institutional behavior once placements are completed.
- » To determine if other variables collected at RDC intake are predictors of institutional behavior.
- » To determine whether committing offense severity, institutional behavior, or other factors are the best predictor of future institutional behavior.

In order to accomplish these goals, a collaboration with Virginia Commonwealth University researchers has been established, and data analysis is currently underway.

### DBT Evaluation

A DBT program adapted for corrections was implemented in one male and one female housing unit at Bon Air JCC to treat aggression management needs in the

fall of calendar year 2013. The 12-week program combines cognitive-behavioral techniques with reality-testing concepts such as mindfulness and distress tolerance.

Prior to implementation, a program evaluation plan was developed. The plan includes pre- and post-testing all juveniles participating in the program on an aggression scale, tracking aggressive behavior within the facilities, and analyzing recidivism rates of program participants after release. Pre- and post-tests will be compared to determine if the program had any effect on participant aggression levels. Likewise, institutional behavior will be monitored through a count of each juvenile's major and moderate offense charges in the facilities. Behavior trends will be examined during and after the program and compared to behavior patterns of juveniles who receive the existing type of aggression management treatment. DJJ's database was updated to collect program completion information, and once juveniles who have completed treatment are released, recidivism rates will be analyzed and compared to juveniles with the same needs who did not receive treatment.



